

PROCEEDINGS OF THE
ROYAL ENTOMOLOGICAL SOCIETY
OF LONDON

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GENERAL MEETING

WEDNESDAY, 20TH NOVEMBER, 1946, at 5.30 p.m.

AGENDA

1. Confirmation of the Proceedings of the General Meeting held on 6th November, 1946.
2. Recommendations of candidates for Fellowship.
3. Announcement of election of new Fellows.
4. Additions to the Library.

Presented.

Newman, L. Hugh : *Talking of Butterflies, Moths, and other fascinating Insects*. 8vo. Worcester, 1946. [The author.]

Kaszab, Z. : *Monographie der Leiochrinen*. 4to. Budapest, 1946. [Dr. K. G. Blair.]

China, W. E., and Parshley, H. M. (Editors) : *General Catalogue of the Hemiptera. Fasc. IV (Fulgoroidea), Part 8, Dictyopharidae*. By Z. P. Metcalf. *Fasc. V. Polycetenidae*. By R. Lester. 8vo. Northampton, Mass., 1946. [Mr. N. D. Riley.]

In addition, separates have been presented by Prof. P. A. Buxton, F.R.S., Dr. V. B. Wigglesworth, F.R.S., and Fleet Paymaster T. Bainbrigge Fletcher, R.N.

5. Admission of Fellows.
6. Nomination of Officers and Council for 1947.
7. Communications.

(1) **Dr. F. I. van Emden.**

Egg-bursters in insects, especially in Coleoptera Polyphaga.

(Illustrated by lantern-slides.)

[Abstract.]

Although egg-bursters have never been found in Hymenoptera and Lepidoptera they are widely distributed in most other Orders of insects. Normally they are found on the frontale, and, in lower insects, an ecdysis occurs immediately after the act of hatching, the egg-burster being shed with the embryonal cuticle. In most higher insects and Thysanura the embryonal cuticle with the egg-burster, if present, is discarded at the end of the first larval stage only. In a few cases obviously caenogenetic egg-bursters are present on mouthparts, etc., and in a few families of Coleoptera Polyphaga egg-bursters

have been found on the dorsal surface of thorax and abdomen. The recent discovery of the latter type of persistent egg-burster in additional families of *Polyphaga* renders it highly probable that they are a palingenetic feature of that suborder, although the *HYDROPHILIDAE* show a puzzling discrepancy.

(2) **Dr. T. H. C. Taylor (on behalf of Mr. F. D. Golding).**

Some observations on *Papilios* carrying large quantities of pollen of *Poinciana regia* in Nigeria.

(3) Communications and exhibits the titles of which have been received since the circulation of these agenda.

Fellows are particularly requested to bring suitable exhibits to the General Meetings even though it may not be possible to announce their intention to do so before the meeting.

If circumstances permit tea will be served in the Library before the meeting.

NOTICE.

A card index of Fellows' addresses arranged on a geographical basis is now available for the use of Fellows in the Society's Rooms. Addresses in Great Britain are grouped under counties; elsewhere under Dominions, Colonies, Foreign States, etc.

PROCEEDINGS OF THE GENERAL MEETING HELD ON 6TH NOVEMBER, 1946.

Professor G. D. Hale CARPENTER, M.B.E., D.M., President, in the Chair.

Present, 62 Fellows and 16 Visitors.

The minutes of the meeting held on 16th October, 1946, were confirmed, and signed by the President.

The names of the following candidates for election were read:—For the first time: P. Vayssière, Rajindar Pal, M.Sc., Ph.D., S. el Din Aboulnasr, and J. H. Armitt.

For the second time: E. Barnett, K. S. Dickinson, M.R.C.S., L.R.C.P., Ph.C., M. Niblett, and T. Spence, M.R.C.V.S.

The Secretary announced that the following had been elected Fellows of the Society:—Capt. I. R. H. Allan, No. 4, Windhill, Bishop's Stortford, Herts; H. Ashforth, Bee-disease Officer, W.W.A.E.C., Guy's Cliffe Avenue, Leamington Spa; M. L. Braddell, Little Grove Priory, Chesham, Bucks; Dr. W. J. S. Bythell, O.B.E., B.A., Morville Hall, Bridgnorth, Salop; Père A. de Cooman, Musée Heude, Shanghai, China; A. E. Curtis, The Cottage, Ifold Estate, Loxwood, nr. Billingshurst, Sussex; R. M. Dobson, 69, Berkeley Street, Glasgow, C. 3; A. J. Duarte, Estação Agronómica Nacional, Sacavém, Portugal; J. Ford, 23, Heathfield Road, Acton, W. 3; G. S. Harrison, 98, Franklin Road, Harrogate, Yorks; R. G. Webster Kay, Libertad 2488, Montevideo, Uruguay; Mrs. M. J. Morgan, B.Sc., 1, Whitegate Drive, Siddal, Halifax, Yorks; F. A. Perkins, B.Sc. Agric., University of Queensland, Brisbane, Australia; Dr. G. Dick Read, M.A., 25, Harley Street, W. 1; P. J. Rennie, A.R.C.S., 71, Heathwood Gardens, S.E. 7; R. C. Sharma, Kettlewell, Woburn Hill, Addlestone, Surrey.

Thanks were voted to donors of gifts to the Library since the last meeting.

Miss Vere Temple, Mr. Maurice Braddell, Mr. H. G. Khalsa, Mr. J. Ford and Mr. J. H. Grundy signed the Obligation Book and were admitted as Fellows.

The following papers accepted for publication in the *Transactions* were read in title :—

“The geographical distribution of the forms of the African Nymphaline butterflies, *Charaxes etesipe* Godart and *Ch. penricei* Rothschild,” by G. D. Hale Carpenter.

“The Odonata of the Ivory Coast based on the mission of Dr. R. Paulian and P. Lepesme,” by F. C. Fraser.

“On the Larvae of the NOCTUIDAE, III,” by J. C. M. Gardner.

“Experiments in the hybridisation of Tsetse-Flies (*Glossina*, Diptera) and the possibility of a new method of control,” by F. L. Vanderplank.

“New species of *Liposcelis* (Corrodentia LIPOSCELIDAE) in England,” by E. Broadhead.

Communications were made by Mr. G. Fox-Wilson, Mr. G. Talbot (on behalf of Mr. R. A. Davis), Dr. S. Pradhan, and Mr. J. Balfour-Browne, abstracts of which appeared on page 32.

In the discussion which followed Mr. Talbot's communication, Mrs. Richardson, Mr. Welti, Professor Carpenter and Dr. Richards referred to similar experiences with larvae of LIMACODIDAE in China, Africa and South America.

Dr. Wigglesworth, in commenting on Dr. Pradhan's talk, said that the method he had described of estimating developmental periods and numbers of generations of insects was a well-known one. He enquired whether the values of the biographs for individual insects at a given temperature were obtained experimentally or by calculation, and Dr. Pradhan said that the constancy of the graph was computed experimentally.

In addition, the following exhibits were made :—

(1) Mr. C. N. Hawkins, on behalf of Dr. K. G. Blair, exhibited a female specimen of the Geometrid moth *Cosymbia puppillaria* Hübner taken in the Isle of Wight on 2nd October, 1946. A continental specimen from Hyères, France, of the same species, and one of *C. porata* Fabricius, borrowed from the Oberthür Collection in the British Museum (Natural History) for the purpose, were also exhibited for comparison. Dr. Blair's specimen was in perfect condition and a number of fertile ova were laid which duly hatched on c. 23–29 October, 1946, and the young larvae were now feeding on leaves of a *Myrtus* sp. Prout (*in* Seitz, *Macro-Lepidoptera of the World* 4: 145–6) says: “Larva on trees and various low shrubs and perhaps low plants,” and quotes Millière as mentioning Oak, *Cistus*, *Myrtus*, *Phillyrea* and *Arbutus*. The distribution of the species was given as S. Europe, N. Africa, Asia Minor, Syria and Armenia, Switzerland, S. Tyrol, and Madeira. Dr. Blair raised the question as to how and when it had arrived in this country and whether it could have been a direct immigrant. He thought its condition suggested that it was not but that it had emerged locally. It had, however, successfully paired. Both parents may have been the offspring of a recent immigration or they may have been descendants of an earlier importation, possibly with plants or shrubs from the Mediterranean before the war. Of their recorded food plants there was a myrtle shrub within ten yards of where the species was captured and two others fairly near, as

well as an *Arbutus* about one hundred yards away. It was not known at present whether any other shrubs had been locally introduced. Dr. Blair suggested that, as the species had a fairly wide range of recorded food plants, it might have adopted some native plant locally more abundant.

At the close of Mr. Hawkins' remarks, Dr. Williams pointed out that the condition of an insect was no criterion as to whether it had emerged locally or not. In his experience insects known to have migrated were sometimes captured in perfect condition.

Dr. Kettlewell said that Dr. Cockayne had had two specimens of this insect in his possession for a number of years which were labelled "Scilly", the label having been thought hitherto to have been an error for Sicily. In the light of Dr. Blair's discovery, he suggested that Dr. Cockayne's specimens might in fact have come from the Scilly Isles after all.

(2) Colonel F. A. Labouchere exhibited two striking varieties of the Small Tortoiseshell Butterfly (*Aglais urticae* L.): (1) ab. *erythrophaea* Fritsch, in which on the upperside the ground colour is wholly red, to the exclusion of yellow markings except for traces between the 2nd and 3rd costal spots, (2) a specimen combining the features of ab. *salmonicolor* Raynor and *atrebatensis* Boisduval. In the latter specimen the ground colour was salmon pink, the 2nd and 3rd costal spots of fore-wing fused and the hind-wing black.

(3) Mr. H. G. Khalsa exhibited and discussed specimens of *Anisopus fenestralis* bred under laboratory conditions in connection with investigations on the fly fauna of sewage filters at Leeds. He remarked that the general colour of the larva was pale pink with deeper rings on the segments. In two families a small number of the larvae were white in colour and a fly from one of these had emerged recently which had completely unpigmented eyes and the entire body paler than usual; every family of the fourth generation had produced a number of individuals with unpigmented eyes and paler coloration.

Dr. Wigglesworth said that this insect had been bred experimentally in Berlin before the war, but he did not know whether this mutant had occurred. Mr. Hawkins suggested that a multiple gene might be involved which took three or four generations to become visible.

(4) Mr. R. L. E. Ford exhibited a store box which had contained butterflies and remained unopened for very many years. It had recently come into his possession. He called attention to the striking imprint of the wings on the bottom of the box, which resembled reproduction by a photographic process. Dr. Williams suggested this might be due to sulphide carried in the wings of the insects, somewhat similar imprints having been obtained on photographic plates from butterfly wings in contact with them in the dark.

(5) Mr. R. F. Bretherton exhibited (1) a melanic variety of *Crocallis elin-guaria* L. taken at light at Ottershaw, Surrey, in August 1946, and (2) an unidentified Noctuid moth possibly belonging to the genus *Miana*.

ADMISSION OF FELLOWS.

Any Fellow who has not been formally admitted to the Society under Chapter XIV, Section 4 of the Bye-Laws and attends the meeting on 20th November, 1946, is requested to inform the Society before 5.15 p.m. on that date.

The next Meeting will be held on Wednesday, 4th December, 1946, at 5.30 p.m.